103D CONGRESS
2D SESSION

H. R. 4489

IN THE SENATE OF THE UNITED STATES

AUGUST 9 (legislative day, AUGUST 8), 1994

Received; read twice and referred to the Committee on Commerce, Science, and Transportation

AN ACT

To authorize appropriations to the National Aeronautics and Space Administration for human space flight, science, aeronautics, and technology, mission support, and Inspector General, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''National Aeronautics and Space Administration Authorization and Space Policy Act, Fiscal Year 1995''.

SEC. 2. FINDINGS.

The Congress finds that—

(1) the National Aeronautics and Space Administration will require a stable budget, adjusted for inflation, in order to carry out the initiatives now planned in human space flight and science, aeronautics, and technology;

(2) cooperation in space should continue to be a major element of the post-cold war foreign policy agenda through a broad range of scientific and engineering programs that have the potential to stabilize the scientific and industrial base of the former Soviet Union and encourage the transition toward political reform and a market-based economy;

(3) the National Aeronautics and Space Administration should aggressively pursue actions and reforms directed at reducing institutional costs, including management restructuring, facility consolidation, procurement reform, personnel base downsizing, and convergence with other defense and private sector systems; and

(4) in formulating a national space transportation policy, the National Aeronautics and Space Administration should take the lead role in developing advanced space transportation technologies in-

cluding reusable space vehicles, single-stage-to-orbit vehicles, and manned space systems.

SEC. 3. DEFINITIONS.

For purposes of this Act—

(1) the term ''Administrator'' means the Administrator of the National Aeronautics and Space Administration; and

(2) the term ''institution of higher education'' has the meaning given such term in section 1201(a) of the Higher Education Act of 1965 (20 U.S.C. 1141(a)).

TITLE I—AUTHORIZATION OF APPROPRIATIONS

Subtitle A—Authorizations

SEC. 101. AUTHORIZATIONS.

(a) AUTHORIZATIONS.—There are authorized to the National Aeronautics and Space Administration for Human Space Flight, Science, Aeronautics, and Technology, Mission Support, and Inspector General, such amounts as may be appropriated for fiscal year 1995.

(b) OPERATING PLAN.—(1) Not later than 60 days after the later of the date of enactment of an Act making appropriations to the National Aeronautics and Space Administration for fiscal year 1995 or the date of enactment of this Act, the Administrator shall submit to the Commit-

tee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate an operating plan that provides a detailed plan for obligating fiscal year 1995 funds.

(2) To the maximum extent practicable, and except to the extent inconsistent with an appropriations Act, the operating plan required under paragraph (1) shall reflect the recommended authorizations set forth in Report No. 103–654 of the House of Representatives.

SEC. 102. SPECIAL PROVISIONS AND LIMITATIONS.

(a) GLOBAL OBSERVATIONS TO BENEFIT THE ENVIRONMENT.—Beginning in fiscal year 1996, amounts appropriated for the Global Observations to Benefit the Environment, or any other program established to perform substantially the same functions, may be obligated only to the extent that an equal or greater amount of non-Federal funding is provided for such program.

(b) SMALL SPACECRAFT TECHNOLOGY INITIATIVE.—No funds authorized to be appropriated under this Act may be obligated for the Small Spacecraft Technology Initiative—

(1) to duplicate private sector activities or to fund any activities that a private sector entity is proposing to carry out for commercial purposes; or

(2) for projects that are initiated after the date of enactment of this Act unless such projects require cost-sharing by industry at levels consistent with comparable joint Government-industry advanced technology development programs.

(c) SCIENTIFIC COOPERATION WITH RUSSIA.—

(1) SENSE OF CONGRESS.—It is the sense of Congress that the National Aeronautics and Space Administration should seek, to the maximum extent practicable, to undertake joint scientific activities with Russia with an initial focus on the robotic exploration of Mars. Such joint scientific activities may include other spacefaring nations, as appropriate.

(2) MARS TRANSITION PLAN.—The Administrator shall provide to the Congress by February 15, 1995, a detailed plan for the transition of the Mars Surveyor program to an integrated Mars exploration program with Russia and other spacefaring nations, as appropriate.

(d) VISITORS CENTER.—To the extent provided in advance in appropriations Acts, all unobligated funds available to the Administrator from appropriations for fiscal years before fiscal year 1995, but not to exceed $5,000,000, may be obligated for the establishment of a Visitor Center for the Lewis Research Center, if at least—

(1) an equal amount of funding;

(2) in-kind resources of equivalent value; or

(3) a combination thereof,

are provided for such purpose from non-Federal sources.

Subtitle B—Limitations and Special Authority

SEC. 111. USE OF FUNDS FOR CONSTRUCTION.

(a) AUTHORIZED USES.—Funds appropriated pursuant to subtitle A for purposes other than—

(1) construction of facilities;

(2) research and program management, excluding research operations support; and

(3) Inspector General,

may be used for the construction of new facilities and additions to, repair of, rehabilitation of, or modification of existing facilities at any location in support of the purposes for which such funds are authorized.

(b) LIMITATION.—None of the funds used pursuant to subsection (a) may be expended for a project, the estimated cost of which to the National Aeronautics and Space Administration, including collateral equipment, exceeds $500,000, until 30 days have passed after the Administrator has notified the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of

the Senate of the nature, location, and estimated cost to the National Aeronautics and Space Administration of such project.

(c) TITLE TO FACILITIES.—If funds are used pursuant to subsection (a) for grants to institutions of higher education, or to nonprofit organizations whose primary purpose is the conduct of scientific research, for purchase or construction of additional research facilities, title to such facilities shall be vested in the United States unless the Administrator determines that the national program of aeronautical and space activities will best be served by vesting title in the grantee institution or organization. Each such grant shall be made under such conditions as the Administrator shall determine to be required to ensure that the United States will receive therefrom benefits adequate to justify the making of that grant.

SEC. 112. AVAILABILITY OF APPROPRIATED AMOUNTS.

To the extent provided in appropriations Acts, appropriations authorized under subtitle A may remain available without fiscal year limitation.

SEC. 113. REPROGRAMMING FOR CONSTRUCTION OF FACILITIES.

(a) IN GENERAL.—Amounts appropriated pursuant to subtitle A for a construction of facilities project—

(1) may be varied upward by 10 percent in the discretion of the Administrator; or

(2) may be varied upward by 25 percent, to meet unusual cost variations, after the expiration of 15 days following a report on the circumstances of such action by the Administrator to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate.

(b) SPECIAL RULE.—Where the Administrator determines that new developments in the national program of aeronautical and space activities have occurred; and that such developments require the use of additional funds for the purposes of construction, expansion, or modification of facilities at any location; and that deferral of such action until the enactment of the next National Aeronautics and Space Administration Authorization Act would be inconsistent with the interest of the Nation in aeronautical and space activities, the Administrator may use for such purposes up to $10,000,000 of the amounts appropriated pursuant to subtitle A for construction of facilities purposes. No such funds may be obligated until a period of 30 days has passed after the Administrator has transmitted to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science,

Space, and Technology of the House of Representatives a written report describing the nature of the construction, its costs, and the reasons therefor.

SEC. 114. CONSIDERATION BY COMMITTEES.

Notwithstanding any other provision of this Act—

(1) no amount appropriated to the National Aeronautics and Space Administration may be used for any program for which the President's annual budget request included a request for funding, but for which the Congress denied or did not provide funding; and

(2) no amount appropriated to the National Aeronautics and Space Administration may be used for any program which has not been presented to the Congress in the President's annual budget request or the supporting and ancilliary documents thereto,

unless a period of 30 days has passed after the receipt by the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate of notice given by the Administrator containing a full and complete statement of the action proposed to be taken and the facts and circumstances relied upon in support of such proposed action. The National Aeronautics and Space Administra-

tion shall keep the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate fully and currently informed with respect to all activities and responsibilities within the jurisdiction of those committees. Except as otherwise provided by law, any Federal department, agency, or independent establishment shall furnish any information requested by either committee relating to any such activity or responsibility.

SEC. 115. USE OF FUNDS FOR SCIENTIFIC CONSULTATIONS OR EXTRAORDINARY EXPENSES.

Funds appropriated pursuant to subtitle A for Mission Support may be used, but not to exceed $35,000, for scientific consultations or extraordinary expenses upon the authority of the Administrator.

SEC. 116. VOLUNTARY SEPARATION INCENTIVES.

The Administrator shall, to the maximum extent practicable, make voluntary separation incentive payments pursuant to the Federal Workforce Restructuring Act of 1994 (Public Law 103–226) to employees of the National Aeronautics and Space Administration from funds appropriated for fiscal year 1995 and available for such payments.

SEC. 117. LIMITATION ON TRANSFERS TO RUSSIA.

(a) LIMITATION.—No funds authorized to be appropriated to the National Aeronautics and Space Administration for fiscal year 1995 may be paid or otherwise transferred to Russia unless—

(1) the payment or transfer is made in exchange for goods or services that have been provided to the National Aeronautics and Space Administration in accordance with a written agreement between the National Aeronautics and Space Administration and Russia;

(2) the Government of the Russian Federation agrees to provide a monthly report to the National Aeronautics and Space Administration during the term of such written agreement, that fully accounts for the disposition of the funds paid or transferred, including information with respect to the preceding month on—

(A) the amount of the funds received, and the date of receipt;

(B) the amount of the funds converted from United States currency, the currency into which the funds have been converted, and the date and rate of conversion;

(C) the amount of non-United States currency, and of United States currency, that is

disbursed to any contractor or subcontractor, the identity of such contractor or subcontractor, and the date of disbursement; and

(D) the balance of the funds not disbursed as of the date of the report;

(3) Russia has provided all monthly reports with respect to which an agreement was made pursuant to paragraph (2); and

(4) the President, before such payment or transfer and annually upon submission of the President's budget request for fiscal years after fiscal year 1995, has certified to the Congress that—

(A) the presence of any troops of the Russian Federation or the Commonwealth of Independent States; and

(B) any action by the Russian Federation or the Commonwealth of Independent States,

in Estonia, Latvia, Lithuania, or any other independent state of the former Soviet Union do not violate the sovereignty of those independent states.

(b) DEFINITION.—For purposes of this section, the term ''Russia'' means the Government of the Russian Federation, the Russian Space Agency, or any agency or instrumentality of the Government of the Russian Federation or the Russian Space Agency.

SEC. 118. SPACE STATION SPENDING CAP.

The total amount of spending by the National Aeronautics Space Administration for the space station shall not exceed $2,120,900,000 for fiscal year 1995. The limitation in this section shall not apply to amounts provided for payments to Russia for phase I of the International Space Station program.

SEC. 119. CONSORTIUM FOR INTERNATIONAL EARTH SCIENCE INFORMATION NETWORK BUILDING.

The Consortium for International Earth Science Information Network may not obligate more than $27,000,000 for the construction of a new building. Such funds may not be obligated until 90 days after the completion of a building prospectus by the General Services Administration.

SEC. 120. LIMITATION ON APPROPRIATIONS.

Notwithstanding any other provision of this Act, no funds are authorized to be appropriated for carrying out the programs for which funds are authorized by this Act for any fiscal year after fiscal year 1995.

TITLE II—MISCELLANEOUS PROVISIONS

SEC. 201. COMMERCIAL SPACE LAUNCH AMENDMENTS.

(a) AMENDMENTS.—Chapter 701 of title 49, United States Code, is amended—

(1) in the table of sections—

(A) by amending the item relating to section 70104 to read as follows:

''70104. Restrictions on launches, operations, and reentries.'';

(B) by amending the item relating to section 70108 to read as follows:

''70108. Prohibition, suspension, and end of launches, operation of launch sites, and reentries.'';

(C) by amending the item relating to section 70109 to read as follows:

''70109. Preemption of scheduled launches or reentries.'';

and

(D) by adding at the end the following new item:

''Sec. 70120. Report to Congress.'';

(2) in section 70102—

(A) by inserting ''from Earth'' after ''and any payload'' in paragraph (3);

(B) by redesignating paragraphs (10) through (12) as paragraphs (12) through (14), respectively; and

(C) by inserting after paragraph (9) the following new paragraphs:

''(10) 'reenter' and 'reentry' mean to return purposefully, or attempt to return, a reentry vehicle and payload, if any, from Earth orbit or outer space to Earth.

''(11) 'reentry vehicle' means any vehicle designed to return from Earth orbit or outer space to Earth substantially intact.'';

(3) in section 70104—

(A) by amending the section designation and heading to read as follows:

"§ 70104. Restrictions on launches, operations, and reentries";

(B) by inserting '', or reenter a reentry vehicle,'' after ''operate a launch site'' each place it appears in subsection (a);

(C) by inserting ''or reentry'' after ''launch or operation'' in subsection (a) (3) and (4);

(D) in subsection (b)—

(i) by striking ''launch license'' and inserting in lieu thereof ''license'';

(ii) by inserting ''or reenter'' after ''may launch''; and

(iii) by inserting ''or reentering'' after ''related to launching''; and

(E) in subsection (c)—

(i) by amending the subsection heading to read as follows: ''PREVENTING LAUNCHES OR REENTRIES.—'';

(ii) by inserting ''or reentry'' after ''prevent the launch''; and

(iii) by inserting ''or reentry'' after ''decides the launch'';

(4) in section 70105—

(A) by inserting '', or reentry of a reentry vehicle,'' after ''operation of a launch site'' in subsection (b)(1); and

(B) by striking ''or operation'' and inserting in lieu thereof '', operation, or reentry'' in subsection (b)(2)(A);

(5) in section 70106(a)—

(A) by inserting ''or reentry site'' after ''observer at a launch site''; and

(B) by inserting ''or reentry vehicle'' after ''assemble a launch vehicle'';

(6) in section 70108—

(A) by amending the section designation and heading to read as follows:

"§ 70108. Prohibition, suspension, and end of launches, operation of launch sites, and reentries";

and

(B) in subsection (a)—

(i) by inserting ‘‘, or reentry of a reentry vehicle,’’ after ‘‘operation of a launch site’’; and

(ii) by inserting ‘‘or reentry’’ after ‘‘launch or operation’’;

(7) in section 70109—

(A) by amending the section designation and heading to read as follows:

‘‘§ 70109. Preemption of scheduled launches or reentries’’;

(B) in subsection (a)—

(i) by inserting ‘‘or reentry’’ after ‘‘ensure that a launch’’;

(ii) by inserting ‘‘, reentry site,’’ after ‘‘United States Government launch site’’;

(iii) by inserting ‘‘or reentry date commitment’’ after ‘‘launch date commitment’’;

(iv) by inserting ‘‘or reentry’’ after ‘‘obtained for a launch’’;

(v) by inserting ‘‘, reentry site,’’ after ‘‘access to a launch site’’;

(vi) by inserting ‘‘, or services related to a reentry,’’ after ‘‘amount for launch services’’; and

(vii) by inserting ''or reentry'' after ''the scheduled launch''; and

(C) in subsection (c), by inserting ''or reentry'' after ''prompt launching'';

(8) in section 70110—

(A) by inserting ''or reentry'' after ''prevent the launch'' in subsection (a)(2); and

(B) by inserting '', or reentry of a reentry vehicle,'' after ''operation of a launch site'' in subsection (a)(3)(B);

(9) in section 70112—

(A) by inserting ''or reentry'' after ''one launch'' in subsection (a)(3);

(B) by inserting ''or reentry'' after ''launch services'' in subsection (a)(4);

(C) by inserting ''or a reentry'' after ''launch services'' each place it appears in subsection (b);

(D) by inserting ''OR REENTRIES'' after ''LAUNCHES'' in the heading for subsection (e); and

(E) by inserting ''or reentry'' after ''launch site'' in subsection (e);

(10) in section 70113(a)(1) and (d)(1) and (2), by inserting ''or reentry'' after ''one launch'' each place it appears;

(11) in section 70115(b)(1)(D)(i)—

(A) by inserting ''reentry site,'' after ''launch site,''; and

(B) by inserting ''or reentry vehicle'' after ''site of a launch vehicle'';

(12) in section 70117—

(A) by inserting ''or reenter a reentry vehicle'' after ''operate a launch site'' in subsection (a);

(B) by inserting ''or reentry'' after ''approval of a space launch'' in subsection (d);

(C) in subsection (f)—

(i) by inserting ''OR REENTRY'' after ''LAUNCH'' in the subsection heading;

(ii) by inserting '', reentry vehicle,'' after ''A launch vehicle'';

(iii) by inserting ''or reentered'' after ''that is launched''; and

(iv) by inserting ''or reentry'' after ''the launch''; and

(D) in subsection (g)—

(i) by inserting ''reentry of a reentry vehicle,'' after ''or launch site,'' in paragraph (1); and

(ii) by inserting ''reentry,'' after ''launch,'' in paragraph (2);

(13) in section 70119, by inserting the following after paragraph (2):

''There are authorized to the Secretary of Transportation such amounts as may be appropriated to carry out this chapter for fiscal year 1995.''; and

(14) by adding at the end the following new section:

''§ 70120. Report to Congress

''The Secretary of Transportation shall submit to Congress an annual report to accompany the President's budget request that—

''(1) describes all activities undertaken under this chapter, including a description of the process for the application for and approval of licenses under this chapter and recommendations for legislation that may further commercial launches and reentries; and

''(2) reviews the performance of the regulatory activities and the effectiveness of the Office of Commercial Space Transportation.''.

(b) ADDITIONAL AMENDMENTS.—(1) Section 70105 of title 49, United States Code, is amended—

(A) in subsection (a), by striking ''receiving an application'' both places it appears and inserting in lieu thereof ''accepting an application in accordance with subsection (b)(2)(D)'';

(B) by striking ''and'' at the end of subsection (b)(2)(B);

(C) by striking the period at the end of subsection (b)(2)(C) and inserting in lieu thereof ''; and''; and

(D) by adding at the end of subsection (b)(2) the following new subparagraph:

''(D) regulations establishing criteria for accepting an application for a license under this chapter.''.

(2) The amendment made by paragraph (1)(A) shall take effect upon the effective date of final regulations issued pursuant to section 70105(b)(2)(D) of title 49, United States Code, as added by paragraph (1)(D) of this subsection.

SEC. 202. OFFICE OF SPACE COMMERCE AUTHORIZATION.

There are authorized to the Secretary of Commerce such amounts as may be appropriated for the activities of the Office of Space Commerce for fiscal year 1995.

SEC. 203. USE OF DOMESTIC PRODUCTS.

(a) GENERAL RULE.—Except as provided in subsection (b), the Administrator shall ensure that procurements are conducted in compliance with sections 2 through 4 of the Act of March 3, 1933 (41 U.S.C. 10a through 10c, popularly known as the ''Buy American Act'').

(b) LIMITATIONS.—This section shall apply only to procurements made for which—

(1) amounts are authorized by this Act to be made available; and

(2) solicitations for bids are issued after the date of enactment of this Act.

(c) INAPPLICABILITY IN CASE OF VIOLATION OF INTERNATIONAL AGREEMENT.—This section shall not apply to the extent that the United States Trade Representative determines that a procurement described in subsection (b) would be in violation of the General Agreement on Tariffs and Trade or an international agreement to which the United States is a party.

(d) PURCHASE OF AMERICAN MADE EQUIPMENT AND PRODUCTS.—

(1) SENSE OF CONGRESS.—It is the sense of Congress that any recipient of a grant under this Act, or under any amendment made by this Act, should purchase, when available and cost-effective,

American made equipment and products when expending grant monies.

(2) NOTICE TO RECIPIENTS OF ASSISTANCE.—In allocating grants under this Act, or under any amendment made by this Act, the Secretary shall provide to each recipient a notice describing the statement made in paragraph (1) by the Congress.

SEC. 204. REQUIREMENT FOR INDEPENDENT COST ANALYSIS.

The Chief Financial Officer for the National Aeronautics and Space Administration shall be responsible for conducting independent cost analyses of all new projects estimated to cost more than $5,000,000 and shall report the results annually to Congress at the time of the submission of the President's budget request. In developing cost accounting and reporting standards for carrying out this section, the Chief Financial Officer shall, to the extent practicable and consistent with other laws, solicit the advice of expertise outside of the National Aeronautics and Space Administration.

SEC. 205. GLOBAL CHANGE DATA AND INFORMATION SYSTEM.

Title I of the Global Change Research Act of 1990 (15 U.S.C. 2931 et seq.) is amended by adding at the end the following new section:

"SEC. 109. GLOBAL CHANGE DATA AND INFORMATION SYSTEM.

''(a) The National Aeronautics and Space Administration, in coordination with other agencies that belong to the Committee established under section 102, shall establish the requirements and architecture for, design, and develop a Global Change Data and Information System that shall serve as the system to process, archive, and distribute data generated by the Global Change Research Program.

''(b) The National Aeronautics and Space Administration shall design the Global Change Data and Information System—

''(1) so that other Federal agencies may connect data centers operated by such agencies to such System; and

''(2) so as to minimize, to the extent practicable, the cost of connecting such data centers.

''(c) Each agency involved in the Global Change Research Program shall retain the responsibility to establish and operate Global Change Data and Information System data centers to process, archive, and distribute data generated by such agency's programs. Agencies may agree to assume the responsibility for processing, archiving, or distributing data generated by other agencies.''.

SEC. 206. ACCESS TO CLASSIFIED DATA FOR GLOBAL CHANGE RESEARCH.

The Committee on Environment and Natural Resources shall develop and submit to the Congress within one year after the date of enactment of this Act a plan for providing access to data from classified archives and systems for global change research. The plan shall—

(1) determine whether the Global Change Data and Information System or other means should be used to provide access to such data for the scientific community; and

(2) identify what agencies should be responsible for particular parts of such data and any data centers needed to process, archive, and distribute such data.

SEC. 207. NATIONAL AERONAUTICS AND SPACE ACT OF 1958 AMENDMENTS.

(a) REPORTS TO THE CONGRESS.—Section 206(a) of the National Aeronautics and Space Act of 1958 (42 U.S.C. 2476(a)) is amended—

(1) by striking ''January'' and inserting in lieu thereof ''May''; and

(2) by striking ''calendar'' and inserting in lieu thereof ''fiscal''.

(b) DISCLOSURE OF TECHNICAL DATA.—Section 303 of the National Aeronautics and Space Act of 1958 (42 U.S.C. 2454) is amended—

(1) in subsection (a)(C), by inserting ''or (c)'' after ''subsection (b)''; and

(2) by adding at the end the following new subsection:

''(c)(1) The Administration may delay for a period not to exceed 5 years the unrestricted public disclosure of technical data in the possession of, or under the control of, the Administration that has been generated in the performance of experimental, developmental, or research activities or programs funded jointly by the Administration and the private sector.

''(2) The Administrator shall issue regulations to carry out this subsection. Paragraph (1) shall not take effect until such regulations are issued.

''(3) Regulations issued pursuant to paragraph (2) shall include—

''(A) guidelines for a determination of whether data is technical data within the meaning of this subsection;

''(B) a requirement that a determination described in subparagraph (A) that particular data is technical data shall be reported to the Committee on

Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate;

''(C) provisions to ensure that technical data is available for dissemination within the United States to United States persons and entities in furtherance of the objective of maintaining leadership or competitiveness in civil and governmental aeronautical and space activities by the United States industrial base; and

''(D) a specification of the period or periods for which the delay in unrestricted public disclosure of technical data is to apply to various categories of such data, and the restrictions on disclosure of such data during such period or periods, including a requirement that the maximum 5-year protection under this subsection shall not be provided unless at least 50 percent of the funding for the activities or programs is provided by the private sector.

''(4) Along with the initial publication of proposed regulations under paragraph (2), the Administrator shall include a list of those experimental, developmental, or research activities or programs conducted by, or funded in whole or in part by, the Administration that may result in products or processes of significant value in maintain-

ing leadership or competitiveness in civil and governmental aeronautical and space activities by the United States industrial base. Such list shall be updated biannually.

''(5) For purposes of this subsection, the term 'technical data' means any recorded information, including computer software, that is or may be directly applicable to the design, engineering, development, production, manufacture, or operation of products or processes that may have significant value in maintaining leadership or competitiveness in civil and governmental aeronautical and space activities by the United States industrial base.''.

SEC. 208. COMPARATIVE ANALYSIS OF UNITED STATES AND FOREIGN EXPENDABLE SPACE LAUNCH SYSTEMS.

The National Aeronautics and Space Administration shall conduct a comprehensive study of the differences between existing United States and foreign expendable space launch vehicles. This study shall determine specific differences in the design, manufacture, processing, and overall management and infrastructure of current United States and foreign expendable space launch vehicles. The study shall also determine the approximate effect of these differences on the relative cost, reliability, and operational efficiency of such space launch systems. This study shall be conducted in consultation with the Department of De-

fense and, as appropriate, other Federal agencies, United States industries, and institutions of higher education. The results of this study shall be submitted to the Congress no later than October 1, 1995.

SEC. 209. UNIVERSITY INNOVATIVE RESEARCH PROGRAM STUDY.

(a) FINDINGS.—The Congress finds that—

(1) institutions of higher education offer a significant resource for the conduct of innovative scientific and technological research to advance the National Aeronautics and Space Administration's mission;

(2) the National Aeronautics and Space Administration should act to broaden the foundation of its research base by increasing the direct involvement of research laboratories of institutions of higher education in the development of technology for space science;

(3) the National Aeronautics and Space Administration should commit to strengthening research programs in technology of institutions of higher education beyond contracting with institutions of higher education for services in support of specific programs; and

(4) the National Aeronautics and Space Administration should develop mechanisms to foster innovative technological research at institutions of higher education that do not participate in the University Space Engineering Research Centers.

(b) STUDY.—The Administrator shall undertake a study of the feasibility and potential implementation of a University Innovative Research Program which—

(1) promotes technological innovation in the United States by using the Nation's institutions of higher education to help meet the National Aeronautics and Space Administration's research and development needs, by stimulating technology transfer between institutions of higher education and industry, and by encouraging participation by minority and disadvantaged persons in technological innovation;

(2) is modeled on the Small Business Innovation Research Program;

(3) avoids duplication of existing National Aeronautics and Space Administration programs with the institutions of higher education; and

(4) derives funding from the Space Research and Technology program.

(c) COMPLETION.—The study required by subsection (b) shall be completed and its results submitted to the Congress within one year after the date of enactment of this Act.

(d) ADVICE.—In carrying out the study required by subsection (b), the Administrator shall seek the advice of the National Aeronautics and Space Administration Advisory Council, the National Research Council's Aeronautics and Space Engineering Board and Space Studies Board, and other organizations as appropriate.

SEC. 210. GEOGRAPHICAL DISTRIBUTION.

The National Aeronautics and Space Administration shall give consideration to geographical distribution of its research and development funds whenever feasible.

SEC. 211. ADDITIONAL NATIONAL AERONAUTICS AND SPACE ADMINISTRATION FACILITIES.

(a) SELECTION IN DEPRESSED COMMUNITIES.—When consistent with the goals of the National Aeronautics and Space Administration and cost-effective, the Administrator shall select sites in depressed communities for new programs or functions of the National Aeronautics and Space Administration, unless those new programs or functions are so closely related to programs or functions carried out at an existing facility as to require being carried out at that existing facility.

(b) DEFINITIONS.—For purposes of this section, the term ''depressed communities'' means rural and urban communities that are relatively depressed, in terms of age of housing, extent of poverty, growth of per capita income, extent of unemployment, job lag, or surplus labor.

SEC. 212. RECIPROCITY.

(a) GENERAL RULE.—Except as provided in subsection (b), no contract or subcontract may be made with funds authorized under this Act to a company organized under the laws of a foreign country unless the Administrator finds that such country affords comparable opportunities to companies organized under the laws of the United States.

(b) EXCEPTION.—(1) The Administrator may waive the rule stated under subsection (a) if the products or services required are not reasonably available from—

(A) companies organized under the laws of the United States; or

(B) companies organized under the laws of a foreign country which the Administrator finds affords comparable opportunities to companies organized under the laws of the United States.

Any such waiver shall be reported to the Congress.

(2) Subsection (a) shall not apply to the extent that to do so would violate the General Agreement on Tariffs

and Trade or any other international agreement to which the United States is a party.

SEC. 213. STUDY ON TDRSS AND COMMERCIAL SATELLITE SYSTEM CONVERGENCE.

(a) REQUIREMENT.—The Administrator shall conduct a study on the convergence of the National Aeronautics and Space Administration Tracking and Data Relay Satellite System (TDRSS) with commercial communications satellite systems. The study shall assess whether a converged system, from which the National Aeronautics and Space Administration would buy tracking and data relay services, could—

(1) satisfy the National Aeronautics and Space Administration's tracking and data relay requirements;

(2) reduce the National Aeronautics and Space Administration's expenses in satisfying tracking and data relay requirements through maintenance and operations of the TDRSS;

(3) be financed, developed, and operated by the private sector;

(4) serve commercial communication needs;

(5) be established to satisfy the National Aeronautics and Space Administration's requirements in

time to obviate the need to procure TDRSS spacecraft beyond the tenth flight; and

(6) encourage the growth of the commercial satellite communications market.

(b) CONSULTATION.—In conducting the study, the Administrator shall consult with commercial satellite operators, including the International Telecommunications Satellite Organization, other international satellite operators, and United States satellite operators, as appropriate, and shall also consult with the Department of Defense concerning its requirements for tracking and data relay services.

(c) REPORT.—The Administrator shall report on the study's findings and recommendations on feasibility of convergence to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate by February 15, 1995.

SEC. 214. STUDY ON CONVERGENCE OF GEOSAT AND EOS ALTIMETRY PROGRAMS.

(a) REQUIREMENT.—The Administrator shall conduct a study on the convergence of the National Aeronautics and Space Administration Earth Observing System (EOS) Altimetry mission with the Navy Geosat Follow-On program. The study shall assess whether a con-

verged system, which may involve minor modifications to the Geosat Follow-On satellite, could—

(1) satisfy the needs of the Earth Observing System program for altimetry data;

(2) reduce the National Aeronautics and Space Administration's expenses in satisfying such needs;

(3) be available in time to serve as the follow-on to the Topex/Poseidon mission; and

(4) continue to meet the Navy's requirements for altimetry data at no additional cost to the Navy.

(b) CONSULTATION.—In conducting the study, the Administrator shall consult with the Navy and the scientific community, as appropriate.

(c) REPORT.—The Administrator shall report on the study's findings and recommendations on the feasibility of convergence to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate by February 15, 1995.

SEC. 215. SPACE SHUTTLE COST REDUCTION INITIATIVES.

By February 1, 1995, the Administrator shall submit a report to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate that—

(1) specifies the minimum number of Space Shuttle flights that would be required each fiscal year from 1995 through 2004 to implement payload and related activities provided for in the President's fiscal year 1995 budget request and supporting and ancillary documents thereto;

(2) outlines the Space Shuttle flight and payload manifest that could be implemented for each of the fiscal years 1995 through 1999 if the Space Shuttle flight rate for each of those years were 8 missions, if the flight rate were 7 missions, and if the flight rate were 6 missions;

(3) evaluates the extent to which various potential management consolidation initiatives could reduce the annual cost of the Space Shuttle program while preserving quality and safety; and

(4) evaluates the extent to which various potential contract incentives could be used to reduce the annual cost of the Space Shuttle program while preserving quality and safety.

SEC. 216. ADVANCED LAUNCH TECHNOLOGY PROGRAM.

(a) FUNDING POLICY.—The Administrator may use, and is encouraged to use, any funds appropriated for Space Shuttle operations, but not needed for such purposes because of a reduction in annual operating costs,

for an advanced launch technology program, including the cost of technology development, flight demonstrators, and procurement of operational flight hardware.

(b) REPORT TO CONGRESS.—By February 1, 1995, the Administrator shall submit to the Congress a program plan for an advanced launch technology program that—

(1) clearly articulates the goals and objectives of the program and the flight hardware it will produce;

(2) describes the management structure and development philosophy that will be used to implement the program;

(3) outlines key milestones toward the achievement of the goals and objectives articulated under paragraph (1);

(4) estimates the total cost that will have been incurred upon completion of the program;

(5) defines the annual budgetary requirements of the program for the next 5 years; and

(6) identifies the source or sources of funding anticipated for the program for each of the next 5 years, including funds described in subsection (a).

SEC. 217. LAND CONVEYANCE.

The Administrator may accept the conveyance to the United States of certain parcels of land from the cities

of Cleveland and Brook Park, Ohio, for the purpose of establishing a Visitor Center for the Lewis Research Center.

SEC. 218. PROCUREMENT.

(a) PROCUREMENT DEMONSTRATION PROGRAM.—

(1) IN GENERAL.—The Administrator shall establish within the Office of Advanced Concepts and Technology a program of expedited technology procurement for the purpose of demonstrating how innovative technology concepts can rapidly be brought to bear upon space missions of the National Aeronautics and Space Administration.

(2) PROCEDURES AND EVALUATION.—The Administrator shall establish procedures for actively seeking from nongovernment persons innovative technology concepts relating to the provision of space hardware, technology, or services to the National Aeronautics and Space Administration, and for the evaluation of such concepts by the National Aeronautics and Space Administration's Advisory Council against mission requirements.

(3) REQUIREMENT.—At least 2 percent of amounts appropriated pursuant to subtitle A for the Office of Advanced Concepts and Technology shall be used for innovative technology procurements that

are determined under paragraph (2) of this subsection to meet mission requirements.

(4) SPECIAL AUTHORITY.—In order to carry out this subsection the Administrator shall recruit and hire for limited term appointments persons from the nongovernmental sector with special expertise and experience related to the innovative technology concepts with respect to which procurements are made under this subsection.

(5) SUNSET.—This subsection shall cease to be effective 10 years after the date of its enactment.

(b) TECHNOLOGY PROCUREMENT INITIATIVE.—

(1) IN GENERAL.—The Administrator shall coordinate National Aeronautics and Space Administration resources in the areas of procurement, commercial programs, and advanced technology in order to—

(A) fairly assess and procure commercially available technology from the marketplace in the most efficient manner practicable;

(B) achieve a continuous pattern of integrating advanced technology from the commercial sector into the missions and programs of the National Aeronautics and Space Administration;

(C) incorporate private sector buying and bidding procedures, including fixed price contracts, into procurements; and

(D) provide incentives for cost-plus contractors of the National Aeronautics and Space Administration to integrate commercially available technology in subsystem contracts on a fixed-price basis.

(2) CERTIFICATION.—Upon solicitation of any procurement for space hardware, technology, or services that are not commercially available, the Administrator shall certify, by publication of a notice and opportunity to comment in the Commerce Business Daily, for each such procurement action, that no functional equivalent, commercially available space hardware, technology, or service exists and that no commercial method of procurement is available.

SEC. 219. ADDITIONAL NATIONAL AERONAUTICS AND SPACE ADMINISTRATION FACILITIES.

The Administrator shall not construct or enter into a new lease for facilities to support National Aeronautics and Space Administration programs unless the Administrator has certified to the Congress that the Administrator has reviewed existing National Aeronautics and Space Administration and other federally owned facilities, including

military facilities scheduled for closing or reduction, and found no such facilities appropriate for the intended use.

SEC. 220. SPACE STATION ACCOUNTING REPORT.

Within one year after the date of enactment of this Act, and annually thereafter, the Administrator shall transmit to the Congress a report with a complete annual accounting of all costs of the space station, including cash and other payments to Russia.

SEC. 221. PURCHASE OF SPACE SCIENCE DATA.

(a) IN GENERAL.—To the maximum extent possible, the National Aeronautics and Space Administration shall purchase from the private sector space science data. Examples of such data include scientific data concerning the elemental and mineralogical resources of the moon and the planets, Earth environmental data obtained through remote sensing observations, and solar storm monitoring.

(b) COMPETITIVE BIDDING.—(1) Contracts for the purchase of space data under this section shall be awarded in a process of full, fair, and open competitive bidding.

(2) Submission of cost data, either for the purposes of supporting the bid or fulfillment of the contract, shall not be required of bidders.

(3) Conformance with military specifications (Milspec) or National Aeronautics and Space Administration specifications systems with respect to the design, con-

struction, or operation of equipment used in obtaining space science data under contracts entered into under this section shall not be a requirement for a commercial provider bidding to provide such services.

(4) Contracts under this section shall not provide for the Federal Government to obtain ownership of data not specifically sought by the Federal Government.

SEC. 222. REMOTE SENSING FOR AGRICULTURAL AND RESOURCE MANAGEMENT.

(a) FINDINGS.—The Congress finds that—

(1) the use of remote sensing data is potentially a valuable resource to anticipate potential food, feed, and fiber shortages or excesses, and provide this information to the agricultural community in time to assist farmers with planting decisions;

(2) remote sensing data can be useful to predict impending famine problems and forest infestations in time to allow remedial action;

(3) remote sensing data can inform the agricultural community as to the condition of crops and the land which sustains those crops;

(4) remote sensing data can be useful to allow farmers to apply pesticides, nutrients, and water, among other inputs, to farmlands in the exact amounts necessary to maximize crop yield, thereby

reducing agricultural costs and minimizing potential harm to the environment;

(5) remote sensing data can be valuable, when received on a timely basis, in determining the needs of additional plantings of a particular crop or a substitute crop; and

(6) the National Aeronautics and Space Administration, using the expertise of the Earth Observations Commercialization Applications Program, and the Department of Agriculture should work in tandem to aid farmers to obtain data conducive to sound agricultural management and greater crop yields.

(b) INFORMATION DEVELOPMENT.—The Secretary of Agriculture and the Administrator of the National Aeronautics and Space Administration, maximizing private funding and involvement, shall provide farmers and other interested persons with timely information, through remote sensing, on crop conditions, fertilization and irrigation needs, pest infiltration, soil conditions, projected food, feed, and fiber production, and any other information available through remote sensing.

(c) ENHANCED REMOTE SENSING PROGRAM.—(1) The Secretary of Agriculture and the Administrator of the National Aeronautics and Space Administration shall

jointly evaluate the need for a radar imaging platform that could enhance United States remote sensing capability by providing information and data relating to agricultural resources, and which may have other commercial and research applications.

(2) In the event there is a finding of need for a platform as set forth in paragraph (1), the Secretary of Agriculture and the Administrator of the National Aeronautics and Space Administration shall jointly develop a proposal, which maximizes private funding and involvement in the launch and operation of such platform, and in the management and dissemination of the data from such platform. The Secretary and the Administrator shall jointly submit the proposal, within 30 days of its development, to the Committee on Agriculture and the Committee on Science, Space, and Technology of the House of Representatives, and to the Committee on Agriculture, Nutrition, and Forestry and the Committee on Commerce, Science, and Transportation of the Senate.

(d) TRAINING.—The Secretary of Agriculture and the Administrator of the National Aeronautics and Space Administration shall jointly develop a proposal to inform farmers and other prospective users concerning the use and availability of remote sensing data.

(e) SUNSET.—The provisions of this section shall expire 5 years after the date of enactment of this Act.

SEC. 223. COORDINATION OF EDUCATION SUPPORT FOR UNDERREPRESENTED GROUPS.

The Administrator shall coordinate with other Federal agencies all National Aeronautics and Space Administration education activities to encourage the participation of women, minorities who are underrepresented in science, engineering, and mathematics, and persons with disabilities.

SEC. 224. SPACE EXPLORATION OPPORTUNITIES ASSESSMENT.

(a) NATIONAL ACADEMY OF SCIENCES CONTRACT.—The Administrator shall, to the extent provided in advance in appropriations Acts, enter into a contract with the National Academy of Sciences for the conduct of the assessment described in subsection (b).

(b) SPACE EXPLORATION OPPORTUNITIES ASSESSMENT.—The contract entered into under subsection (a) shall provide for an assessment of methods for maximizing, based on a variety of prospective funding levels, the quantity and quality of opportunities for space exploration, both human and robotic, using space vehicles and platforms available or expected to be available. Such assessment shall focus on the 5-year period after the date

of enactment of this Act, and on each of the two subsequent 5-year periods. Such assessment shall address opportunities in connection with civilian and military domestic, and foreign, space vehicles and platforms, whether publicly or privately funded.

(c) REPORT TO CONGRESS.—The Administrator shall, within one year after the date of enactment of this Act, submit to Congress a report containing the results of the assessment conducted under subsection (b).

SEC. 225. CATALOGUE OF EARTH-THREATENING COMETS AND ASTEROIDS.

(a) REQUIREMENT.—To the extent practicable, the National Aeronautics and Space Administration, in coordination with the Department of Defense and the space agencies of other countries, shall identify and catalogue within 10 years the orbital characteristics of all comets and asteroids that are greater than 1 kilometer in diameter and are in an orbit around the sun that crosses the orbit of the Earth.

(b) PROGRAM PLAN.—By February 1, 1995, the Administrator shall submit to the Congress a program plan, including estimated budgetary requirements for fiscal years 1996 through 2000, to implement subsection (a).

TITLE III—REVISIONS TO LAND REMOTE SENSING POLICY ACT OF 1992

SEC. 301. AMENDMENTS.

The Land Remote Sensing Policy Act of 1992 (15 U.S.C. 5601 et seq.) is amended—

(1) by amending section 2(9) to read as follows:

''(9) Because Landsat data are particularly important for global environmental change research, the program should be managed by an integrated team consisting of the National Aeronautics and Space Administration and the National Oceanic and Atmospheric Administration and coordinated by the Office of Science and Technology Policy.'';

(2) in sections 3(6)(A), 101 (a) and (b), 103(b), and 504, by striking ''Secretary of Defense'' and inserting in lieu thereof ''Secretary'';

(3) in section 3(6)(B), by striking ''Department of Defense'' and inserting in lieu thereof ''Department of Commerce'';

(4) in section 101(b)(1), by striking '', with the addition of a tracking and data relay satellite communications capability'';

(5) in section 101(b)(2), by striking all after ''baseline funding profile'' and inserting in lieu

thereof ''for the development and operational life of Landsat 7 that is mutually acceptable to the agencies constituting the Landsat Program Management;'';

(6) in section 101(b), by inserting after paragraph (4) the following:

''The Director of the Office of Science and Technology Policy shall, no later than October 1, 1994, transmit the management plan to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate.'';

(7) in sections 101(c)(3), 202(b)(1), 501(a), and 502(c)(7), by striking ''section 506'' and inserting in lieu thereof ''section 507'';

(8) in section 102(b)(1), by striking ''by the expected end of the design life of Landsat 6'' and inserting in lieu thereof ''by the predicted end of life of Landsat 5, or as soon as practicable thereafter'';

(9) in section 103(a), by striking ''section 105'' and inserting in lieu thereof ''section 104'';

(10) by adding at the end of section 103 the following new subsection:

''(c) IMPLEMENTATION OF AGREEMENT.—If negotiations under subsection (a) result in an agreement that the

Landsat Program Management determines generally achieves the goals stated in subsection (a)(1) through (8), the Landsat Program Management shall award an extension, until the practical demise of Landsat 4 or Landsat 5, whichever occurs later, of the existing contract with the Landsat 6 contractor incorporating the terms of such agreement.'';

(11) by striking section 104 and redesignating section 105 as section 104;

(12) in section 201(c)—

(A) by striking ''120 days'' and inserting in lieu thereof ''90 days''; and

(B) by amending the second sentence thereof to read as follows: ''If the Secretary determines that the license requested by the applicant should not be issued, the Secretary shall inform the applicant within such 90-day period of the reasons for such determination and the specific actions required of the applicant to obtain a license.'';

(13) in section 202(b)(6), by inserting '', other than for the sale of data generated by the system in accordance with the license, that'' after ''of any agreement'';

(14) in section 204, by striking ''may'' and inserting in lieu thereof ''shall'';

(15) by inserting at the end of title II the following new section:

''SEC. 206. NOTIFICATION.

''(a) LIMITATIONS ON LICENSEE.—Within 30 days after any determination by the Secretary to require a licensee to limit collection or distribution of data from a system licensed pursuant to this title, the Secretary shall report to the Congress the reasons for such determination, the limitations imposed on the licensee, and the period during which such limitations apply.

''(b) TERMINATION, MODIFICATION, OR SUSPENSION.—Within 30 days after any action by the Secretary to seek an order of injunction or other judicial determination pursuant to section 203(a)(2), the Secretary shall notify the Congress of such action and provide the reasons for such action.'';

(16) in section 302—

(A) by striking ''(a) GENERAL RULE.—''; and

(B) by striking subsection (b); and

(17) in section 507, by striking subsection (a) and subsection (b)(1) and inserting in lieu thereof the following:

''(a) RESPONSIBILITY OF SECRETARY OF DEFENSE.—The Secretary shall consult with the Secretary of Defense on all matters under this Act affecting national security. Within 30 days after receiving a request from the Secretary, the Secretary of Defense shall recommend any conditions for a license issued under title II, consistent with this Act, that the Secretary of Defense determines are needed to protect the national security of the United States. If no such recommendations have been received by the Secretary within such 30-day period, the Secretary may deem activities proposed in the license application to be consistent with the protection of the national security of the United States.

''(b) RESPONSIBILITY OF SECRETARY OF STATE.—(1) The Secretary shall consult with the Secretary of State on all matters under this Act affecting international obligations of the United States. Within 30 days after receiving a request from the Secretary, the Secretary of State shall recommend any conditions for a license issued under title II, consistent with this Act, that the Secretary of State determines are needed to meet existing international obligations of the United States. If no such recommendations have been received by the Secretary within such 30-day period, the Secretary may deem activities proposed in

the license application to be consistent with existing international obligations of the United States.''.

TITLE IV—AERONAUTICAL RESEARCH AND TECHNOLOGY

SEC. 401. FINDINGS.

The Congress finds that—

(1) the United States aeronautics industry has provided a major contribution to the competitiveness of the United States, and has accounted for over $80,000,000,000 in annual sales and over $20,000,000,000 in positive balance of trade;

(2) the international market share of the United States aeronautics industry has steadily eroded due to competition from foreign consortia that receive substantial direct subsidies from their governments;

(3) the United States aeronautics industry has been severely impacted by the reductions in defense spending, leading to reduced levels of research and development investment by industry;

(4) the foreign policy of the United States has included maintaining United States competitiveness and technology leadership in areas of strategic interest, such as aeronautics, but United States aeronautics has not been addressed in United States for-

eign policy with the same emphasis as United States international space endeavors;

(5) no effective means have been developed by which the National Aeronautics and Space Administration can accurately measure the contribution of its research toward achieving United States competitiveness and maintaining technological leadership; and

(6) maintaining experimental state-of-the-art facilities has been a key investment to retaining United States competitiveness and technological leadership, and these facilities have been heavily utilized by United States industry in their research and development programs.

SEC. 402. AERONAUTICS POLICY OF THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION.

It is the policy of the United States that—

(1) improving the competitive capability of the United States aeronautics industry shall be a fundamental goal of the aeronautical research and development programs of the National Aeronautics and Space Administration;

(2) the investment in aeronautics technology by the National Aeronautics and Space Administration

shall be closely coordinated with United States industry;

(3) the establishment of industry-led, precompetitive consortia shall be encouraged to better prioritize and coordinate the industry requirements for advanced technologies and facilities;

(4) revitalizing national aeronautical facilities shall be a major element of Federal investment in aeronautical research and development; and

(5) industry and government cost-sharing for facilities construction and use shall be investigated to achieve aeronautics research and technology goals within a constrained Federal budget.

SEC. 403. AMENDMENTS TO THE NATIONAL AERONAUTICS AND SPACE ACT OF 1958.

(a) TECHNICAL CORRECTION AMENDMENT.—(1) Section 214 of the National Aeronautics and Space Administration Authorization Act, Fiscal Year 1989 is amended by striking ''(c)'' both places it appears and inserting in lieu thereof ''(d)''.

(2) The amendment made by paragraph (1) shall be effective as of the date of enactment of the Act referred to in paragraph (1).

(b) OBJECTIVES.—Section 102(d) of the National Aeronautics and Space Act of 1958 (42 U.S.C. 2451(d)) is amended—

(1) by striking ''and'' at the end of paragraph (8);

(2) by striking the period at the end of paragraph (9) and inserting in lieu thereof a semicolon; and

(3) by adding at the end the following new paragraphs:

''(10) The economic growth, competitiveness, and productivity of the Nation through close coordination with industry in the conduct of innovative aeronautics technology validation and technology transfer programs; and

''(11) The improvement of the safety, capacity, and efficiency of the United States air transportation system through close coordination among the agencies of the Federal Government.''.

SEC. 404. AERONAUTICAL BASIC RESEARCH INVESTMENT PLAN.

(a) PLAN.—The Administrator shall develop an aeronautical basic research investment plan which—

(1) describes the aeronautical basic research underway within the United States, including a re-

view of the status of United States basic research in critical aeronautics disciplines including—

(A) aerodynamics;

(B) propulsion;

(C) materials and structures;

(D) controls, guidance, and human factors; and

(E) flight systems;

(2) establishes goals and objectives for United States aeronautical basic research to advance the critical disciplines required by United States industry for such research;

(3) identifies the priorities for aeronautical basic research required by industry to advance United States long-term competitiveness;

(4) describes the anticipated impact of aeronautical basic research on United States long-term competitiveness;

(5) encourages the transfer of Government-developed technologies to the private sector to promote economic strength and competitiveness; and

(6) identifies opportunities for aeronautical basic research to be performed by minority-owned and women-owned businesses within the aeronautical basic research industry.

The Administrator shall annually update the plan, including a report on progress in achieving the goals and objectives identified pursuant to paragraph (2).

(b) INDEPENDENT EVALUATION.—The Administrator shall submit the plan developed under subsection (a), and all subsequent annual updates thereto, along with appropriate programmatic technical, schedule, and financial information, to the National Research Council of the National Academy of Sciences for an independent evaluation of such plan.

(c) TRANSMITTAL TO CONGRESS.—The Administrator shall, along with the first annual budget request of the President occurring more than 1 year after the date of enactment of this Act, transmit to the Congress the plan developed under subsection (a) and the results of the independent review conducted pursuant to subsection (b). Subsequent annual updates to the plan and independent reviews thereof shall be transmitted to the Congress along with subsequent annual budget requests of the President.

SEC. 405. ROLE OF PROCUREMENT IN TECHNOLOGY INVESTMENT.

The Administrator, in carrying out aeronautical research and technology procurement, shall—

(1) promote the advancement of state-of-the-art research and technologies;

(2) assess and procure, where appropriate, commercially available technologies;

(3) where appropriate, use performance specifications in procuring technologies; and

(4) reduce the paperwork requirements associated with procurement.

SEC. 406. AERONAUTICAL TEST FACILITIES INITIATIVE.

(a) STRATEGY.—The President shall establish a strategy to coordinate with domestic aeronautical companies to establish the requirements of such companies and the Federal Government for aeronautical test facilities. The strategy shall—

(1) define the capabilities of aeronautical test facilities required by domestic aeronautical companies and the Federal Government over the next 30 years;

(2) assess the impact to United States competitiveness over the next 30 years resulting from the use of a combination of domestic and foreign aeronautical test facilities by domestic companies; and

(3) identify a funding method for procuring new aeronautical test facilities which includes cost sharing and risk sharing with domestic aeronautical companies, and which uses innovative financing

schemes for the construction and operation of such new facilities.

(b) TRANSMITTAL TO CONGRESS.—The strategy established under subsection (a), along with anticipated budget requirements over the next 10 years associated with implementing the strategy, shall be transmitted to the Congress no later than 6 months after the date of enactment of this Act.

SEC. 407. JOINT AERONAUTICAL RESEARCH AND DEVELOPMENT PROGRAM.

(a) ESTABLISHMENT.—The Administrator and the heads of other appropriate Federal agencies shall jointly establish a program for the purpose of conducting research on aeronautical technologies that enhance United States competitiveness. Such program shall include—

(1) research on next-generation wind tunnel and advanced wind tunnel instrumentation technology;

(2) research on advanced engine materials, engine concepts, and testing of propulsion systems or components of the high-speed civil transport research program;

(3) advanced general aviation research;

(4) advanced rotorcraft research; and

(5) advanced hypersonic aeronautical research.

(b) CONTRACTS AND GRANTS.—Contracts and grants entered into under the program established under subsection (a) shall be administered using procedures developed jointly by the Administrator and the heads of the other Federal agencies involved in the program. These procedures should include an integrated acquisition policy for contract and grant requirements and for technical data rights that are not an impediment to joint programs among the National Aeronautics and Space Administration, the other Federal agencies involved in the program, and industry.

(c) ELEMENTS OF PROGRAM.—The program established under subsection (a) shall include—

(1) selected programs that jointly enhance public and private aeronautical technology development;

(2) an opportunity for private contractors to be involved in such technology research and development; and

(3) the transfer of Government-developed technologies to the private sector to promote economic strength and competitiveness.

SEC. 408. HYPERSONIC RESEARCH INITIATIVE.

The Administrator shall conduct a study, through an organization not a part of the National Aeronautics and Space Administration, of strategies that would optimize

the Hypersonic System Technology Program by integrating with the rocket-based hypersonic flight test experiments the necessary development program which would achieve a single-stage hypersonic research vehicle capable of Mach 15 or greater, in the shortest possible time frame. The objective of a program developed under the strategies identified through such study would be the development of a single stage to orbit air breathing aircraft. The Administrator shall report the results of the study to Congress no later than 6 months after the date of enactment of this Act.

Passed the House of Representatives August 8, 1994.

Attest: DONNALD K. ANDERSON,

Clerk.

HR 4489 RFS——2

HR 4489 RFS——3

HR 4489 RFS——4

HR 4489 RFS——5